

(c) Remarks

The Claims are 8, 11-13, 15-20, 51 and 52, with Claims 8, 13 and 52 being independent. The subject matter of now-cancelled Claim 10 has been incorporated into the independent claims. Claims 51 and 52 have been added to provide Applicants with a more complete scope of protection. Support for these claims is found throughout the specification, and, for example, at page 30, lines 16-23. Additionally, the non-elected claims and Claims 9 and 14 are now cancelled without prejudice or disclaimer of their subject matter. Claims 8, 11-13 and 15-20 have been amended to define still more clearly what Applicants regard as their invention. Support for these changes is located in the specification at page 16, lines 13-17 and page 17, lines 16-24. Accordingly, no new matter has been added and reconsideration of the claims is respectfully requested.

The Examiner had rejected Claims 9 and 10 under 35 U.S.C. § 102(e) as being anticipated or, in the alternative, under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 6,602,620 (Kikitsu et al.). Applicants respectfully submit that this rejection has been rendered moot by the present cancellation of these claims.

Claims 8, 11-13 and 15-20 stand rejected under 35 U.S.C. § 102(e) as allegedly anticipated by Kikitsu. The grounds for this rejection are respectfully traversed.

As currently amended, Claim 8 is directed to a device formed by incorporating a filling material into a porous body, obtained by removing columnar members from a structure comprised of the columnar members and an area surrounding those members.

In one important aspect, Claim 8 recites that this area surrounding the columnar members is made of an amorphous Si, or an amorphous $\text{Si}_x\text{Ge}_{1-x}$ ($0 < x < 1$), with

the average distance between the columnar members being 30 nm or less.

An illustration of this feature is found in the specification at page 16, lines 1-24 and page 38 lines 16-27. The columnar members 1000, as illustrated in Figure 1, are distributed in a porous matrix 1002 formed of either amorphous Si or amorphous $\text{Si}_x\text{Ge}_{1-x}$. The composition of the porous matrix surrounding the columnar members is advantageous in that it enables better control of the center-to-center distance between the columnar members. See specification, page 17, line 25-page 18, line 3 and pages 44-47. Further, as noted at page 48, it is possible to selectively dissolve the columnar portions by acid or alkali without dissolving the amorphous Si or SiGe or to selectively anodize the structure to remove the columnar portions and to oxidize the surrounding area to a stable region.

Kikitsu, on the other hand, discloses a matrix of a non-magnetic material comprising "a compound expressed by the general formula M-G or a carbon atom, organic material and the like." Column 10, lines 6-7. However, in contrast to Claim 8 of the present invention, neither Si or SiGe itself are listed among the possible substances Kikitsu's discusses as comprising its non-magnetic material. Instead, in all of the instances where Si is included in the non-magnetic material of Kikitsu, it is indicated as being a part of the compound represented by the formula M-G, bound up with an element of oxygen, nitrogen, or carbon. As such, amorphous Si by itself is not present in the cited reference. SiGe is not disclosed at all in Kikitsu.

These defects and deficiencies of Kikitsu are not remedied by Col.13, lines 51-62 which merely teaches that an amorphous underlayer can control crystalline or amorphous properties of its magnetic or non-magnetic portion. That is; the cited portions

of this reference fail to teach or even suggest a porous matrix that constitutes either an amorphous Si or an amorphous SiGe, as required by the present claim. At most, Kikitsu discloses that an amorphous underlayer 20 permits control of the structure for either a magnetic or non-magnetic portion located above it. The material comprising the porous matrix, however, is an amorphous oxide or amorphous nitride. Nothing has been found in the specification that would motivate one of ordinary skill in the art to substitute the "G" component in Kikitsu's general compound M-G with either Si or SiGe. Accordingly, this reference cannot be relied upon for this feature as claimed by Applicants.

Accordingly, Applicants believe that Claim 8 is patentable over the cited art, and kindly request withdrawal of the rejection under 35 U.S.C. § 102(e). Independent Claims 13 and 52, each directed to an article, also recite the features discussed above, and are therefore believed patentable for at least the same reasons.


The other rejected claims in this application depend from one or another of the independent Claims 8 and 13 discussed above, and, therefore, are submitted to be patentable for at least the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, individual consideration or reconsideration, as the case may be, of the patentability of each claim on its own merits is respectfully requested.

Should the Examiner believe that issues remain outstanding, it is respectfully requested that the Examiner contact Applicants' undersigned attorney in an effort to resolve such issues and advance the case to issue.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and the allowance of the present application.

Applicants' undersigned attorney may be reached in our New York Office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Peter Saxon", written over a horizontal line.

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